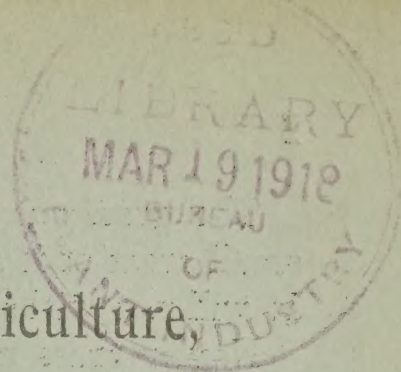


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United States Department of Agriculture,

BUREAU OF PLANT INDUSTRY,

Forage-Crop Investigations,

WASHINGTON, D. C.

NAPIER GRASS.

Napier grass or Napier fodder (*Pennisetum purpureum*) is a native of Africa between the latitudes of 10° north and 20° south. It was first cultivated as a fodder plant in Rhodesia in 1909 and subsequently has assumed considerable importance as a forage plant in South Africa. Plants were introduced by the United States Department of Agriculture in 1913, since which time the grass has been under test at several field stations and also by various farmers cooperating with the department.

Napier grass is a perennial and has proved hardy as far north as Charleston, S. C. It may be expected to succeed wherever sugar cane can be grown. The stems grow to a height of 8 to 12 feet in clumps of 10 to 20 and become 1 to 1½ inches in diameter at the base. The numerous leaves are one-half to 1 inch broad and 1 to 2 feet long, rather firm in texture. From the axils of some of the leaves short, erect branches may be produced. The blossoms are in a long, narrow, erect, golden spike, resembling somewhat the bullrush and the cat-tail millet. The plant does not bloom until late in the season.

The mature canes are rather fibrous and somewhat woody, so that they are not eaten by animals, but the leaves and young canes are eagerly devoured by horses and cows.

The grass is strongly resistant to drought, as proved by experience both in South Africa and in this country.

On account of the rather woody stems of the mature plant, there has been doubt as to its utility as a forage plant. No experiments have yet been performed to determine how satisfactory the mature plant would be for silage. It is not unlikely that as silage most, if not all, of the canes would be consumed. If utilized for silage it may prove most desirable to cut two crops a season, harvesting when the plants are 5 or 6 feet high.

As a crop to cut and feed green, Napier grass should be very valuable, especially to the man who keeps a cow or a few cows. The grass could be cut three or four times in a season. No other grass that can be thus used will equal it in yield and palatability.

The grass may also be found valuable to pasture, especially if small areas of it are fenced so that they may be grazed in succession. It will not withstand continuous close pasturing.

Napier grass may be propagated by seed, by cuttings, or by sections of the mature cane. The seeds must be planted carefully in boxes or seed beds and the young plants transplanted when 6 to 12 inches feet high.

A well-grown plant can be divided into many pieces in spring, and each will grow readily.

Mature canes can be planted after the manner of sugar canes. Usually it will be best to windrow the canes in the fall and plant them where desired in the spring. If the canes are divided, each portion should be 18 to 24 inches long.

For permanent plantings Napier grass should be in rows 6 feet wide and the plants 3 feet apart in the rows. One South African farmer produced over 7,000 plants from three plants in a single year by using slips and root division.

Napier grass is still in an experimental stage as a forage plant, but is well worthy of trial in the region to which it is adapted. There is no sufficient basis for any enthusiastic booming of this grass. Already two new names have been applied to it—Japanese bamboo grass, a name based on a misapprehension, and Carter grass. Such new names are unnecessary and lead to confusion.

The chemical analyses of Napier grass as contrasted with green fodder corn are as follows:

Constituents.	Napier grass.	Green corn.
Water.....	61.81	79.0
Ether extract (fats).....	.29	.5
Protein.....	2.92	1.7
Carbohydrates.....	17.29	12.0
Woody fiber.....	14.77	5.6
Ash.....	2.92	1.2

C. V. PIPER,
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